

Nico D'Cotta

Backend Software Engineer



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EXPERIENCE

06/2020 – today
intern,
then part-time,
then full time

Platform engineer, at **Blockchain.com**

Large crypto finance house (including a wallet and an exchange) with retail and institutional businesses.

Implementing application **performance monitoring** and performing **production incident response**.

Shipping under time constraints on several large **JVM** (mainly **Kotlin**) codebases that power the cryptocurrency exchange, the wallet, and crypto brokerage.

Scaling up **stateful distributed** systems with an event-driven architecture.

Onboarding new engineers in the team to the complex product and architecture of Blockchain.

Engineering tooling in order to facilitate development and allow for faster iterations.

06/2019 –
10/2019
intern

Software Engineer, at **Emit, Inc.**

Four-person startup with its own smartwatch aiming to provide time-analytics to institutional customers.

Worked on data analytics, developing a data processing pipeline and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**.

EDUCATION

2018 – 2022

MEng Computer Science – First Class Honours, at **Imperial College London**

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling.

Additional Business School modules include Project Management, Finance & Financial Markets, and Business Strategy.

2015-2018

French Baccalaureate (S-SI) – Highest Honours, at **French Lycée of Madrid**

High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.

Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

see my full portfolio at nico.dcotta.eu

AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS, TS

DJStreamr, collaborative streaming service for DJs

djstreamr.com

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

Kotlin, JVM bytecode, ARM11 assembly

WACC, multiplatform compiler

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Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack-allocated primitives, and heap-allocated arrays and pairs.

C, x86 assembly

PintOS, UNIX-like OS

pintos-os.org

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

Elixir, Paxos

Multi-Paxos

cottand/multi-paxos

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper *Paxos Made Moderately Complex*.

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle

Experience with Python, C, Haskell, Typescript, Elixir

AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway), Nomad gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

Object-oriented, Functional, Actor-oriented, and Procedural programming.

HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!

LANGUAGES

English - bilingual (C2 certification)

Spanish - native

French - bilingual

Portuguese - advanced level

SKILLS

"Cool under pressure"

"Pleasant to work with"

"Owns solutions and sees them through"

"Aware of product quality"

I can google well!